

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1.

ENVIRONMENTAL SERVICES DIVISION 60 WESTVIEW STREET LEXINGTON, MASSACHUSETTS 02173-3185 Starton

DATE: November 26, 1997

SUBJ: Analysis of Polychlorinated Biphenyls (PCBs) in Wipe Samples - JARD, INC.

FROM: Paul Carroll, Chemistry Section

THRU: Dr. William J. Andrade, Advanced Analytical Chemistry Specialist

TO: Mary Ellen Stanton WJA 11/28/97

PROJECT NUMBER: 98046

# ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the SOP for Sample Log-In (EIA-ADMLOGN1.SOP, 7/97).

The wipe samples were extracted with 10 ml of hexane on a wrist shaker for 60 min. The extracts were screened on a 15 m, DB-5 capillary column using a Perkin Elmer 8500 gas chromatograph. Qualitative and quantitative analyses were done on a dual capillary system, Hewlett Packard 5890 gas chromatograph with two 30m, DB-1701 and DB-5, 0.25mm ID and a 0.25 micron film thickness. Results are reported out in total amount of PCBs observed per wipe.

Date(s) Samples Received by the Laboratory: 10/30/97

Date Analysis Started: 11/04/97

cc:

File: J:\CHEMSTRY\REPORTS\PCB-PEST\98046WI.PCB

SDMS DocID

564433

# US ENVIRONMENTAL PROTECTION AGENCY 60 Westview Street Lexington, MA 02173

### QUALITY CONTROL:

- 1. One method blank was included in the analysis.
- 2. Each sample was spiked with the surrogate compounds, tetrachloroxylene (TCX) and decachlorobiphenyl (DCB), at 10 ug/wipe. The results for the surrogate recoveries are reported out with each sample.
- 3. One laboratory fortified blank (LFB) was spiked with Aroclor-1260 at approximately 10 ug. The recovery is listed below.

PCB Recovery (%)
Aroclor-1260 88

SAMPLES ANALYZED:

05710, 08061, BLANK, LFB

# US ENVIRONMENTAL PROTECTION AGENCY 60 Westview Street Lexington, MA 02173

Chemist who reviewed data: Peter Philbrook

Holding times meet (Y/N): Yes
Extraction (Water - 7 days, Soils - 14 days)
Analytical (40 days after extraction)

Method modifications: Samples were extracted using a separatory funnel due to the large sample size.

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems: None

Additional comments: None

#### FACILITY SAMPLED:

JARD, INC.

US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Polychlorinated Biphenyls

SAMPLE NO.: 08061

DATE OF COLLECTION: 10/29/97 Matrix: Wipe DATE OF EXTRACTION: Final Volume: 11/04/97 10 mL Extract Dilution: DATE OF ANALYSIS: 11/08/97 50x AMOUNT EXTRACTED: 1 wipe Report Factor: 50

#### SAMPLE RESULTS:

CAS	Compound	Amount		ualifier
NO.		(ug/Wipe)	(ug/Wipe)o	or comment
12674-11-2	Aroclor-1016	ND	5E+01	
11104-28-2	Aroclor-1221	ND	5E+01	
11141-16-5	Aroclor-1232	ND	5E+01	
53469-21-9	Aroclor-1242	490	5E+01	
12672-29-6	Aroclor-1248	ND	5E+01	
11097-69-1	Aroclor-1254	ND	5E+01	
11096-82-5	Aroclor-1260	ND	5E+01	
11100-14-4	Aroclor-1262	ND	5E+01	
37324-23-5	Aroclor-1268	ND	5E+01	
Sample Recov	ery for	Observed		
Surrogate Compound:		Recoveries	(%)	
D	ecachlorobiphenyl	NA		
2,4,5,6-Tetrachloro-m-xylene		NA		

## Notes:

RL = Reporting limit

(6E+00 = 6, 1E+01 = 10, 4E-01 = 0.4)

ND = None detected

= Approximate

< = Less than</pre>

> = Greater than

NA = Not applicable due to high sample dilutions or sample interferences

E = Estimated value exceeds the calibration range

L = Estimated value is below the calibration range

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank.

P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.

D = Detected but too low to quantitate.

C = The identification has been confirmed by GC/MS.

# FACILITY SAMPLED:

JARD, INC.

US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Polychlorinated Biphenyls

DATE OF EXTRACTION: 11/04/97 DATE OF ANALYSIS: 11/08/97		Matrix: Final Volume: Extract Dilution: Dilution Factor:		Wipe 10 mL None 1
SAMPLE RESULTS	:	•		
CAS NO.	Compound	Amount (ug/Wipe)	RL (ug/Wipe)	Qualifier or Comment
12674-11-2 11104-28-2 11141-16-5 <b>53469-21-9</b> 12672-29-6 11097-69-1 11096-82-5 11100-14-4 37324-23-5	Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260 Aroclor-1262 Aroclor-1268	ND ND OFFICIENT ND ND ND ND ND ND ND ND	1E+00 1E+00 1E+00 1E+00 1E+00 1E+00 1E+00 1E+00	
Sample Recover Surrogate Comp		Observed Recoveries	s (%)	•
	Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	90 . e 79		

FACILITY SAMPLED:

JARD, INC.

US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY

Polychlorinated Biphenyls

SAMPLE NO.: BLANK

DATE OF COLLECTION: Not applicable Matrix: Wipe
DATE OF EXTRACTION: 11/04/97 Final Volume: 10 mL
DATE OF ANALYSIS: 11/07/97 Extract Dilution: None
AMOUNT EXTRACTED: 1 wipe Dilution Factor: 1

# SAMPLE RESULTS:

CAS NO.	Compound	Amount (ug/Wipe)	RL Qualifier (ug/Wipe)or Comment
12674-11-2	Aroclor-1016	ND	1E+00
11104-28-2	Aroclor-1221	ND	1E+00
11141-16-5	Aroclor-1232	ND	1E+00
53469-21-9	Aroclor-1242	ND	1E+00
12672-29-6	Aroclor-1248	ND	1E+00
11097-69-1	Aroclor-1254	ND	1E+00
11096-82-5	Aroclor-1260	ND	1E+00
11100-14-4	Aroclor-1262	ND	1E+00
37324-23-5	Aroclor-1268	ND	1E+00
	•		

Sample	Rec	covery	for
Surroga	ite	Compou	ınd:

Observed Recoveries (%)

•	Decachlorobiphenyl	84
	2.4.5.6-Tetrachloro-m-xvlene	79